

BENCHMARKS

VOLUME 7 NUMBER 3

NORTH TEXAS STATE UNIVERSITY

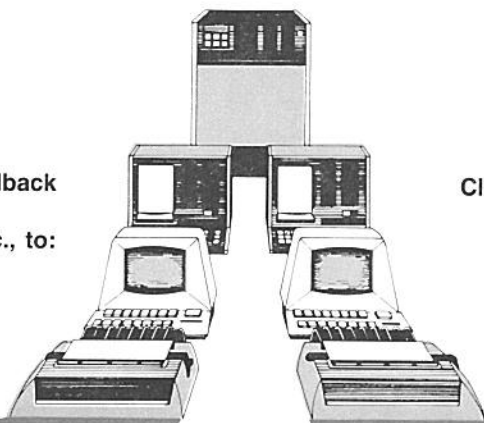
MARCH 1986

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BENCHMARKS Reader/User feedback is encouraged.

Send all letters, suggestions, etc., to:
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SERVICES AVAILABLE TO USERS OF THE NTSU COMPUTING FACILITIES

The NTSU Computing Center is located in the Information Sciences Bldg. Room 119. Telephone: (817) 565-2324. HELP DESK phone: 565-4050. Graphics Lab phone: 565-3479

BENCHMARKS QUESTIONS/CONTRIBUTIONS, ETC. - Claudia Lynch

INFORMATION & ID CODES; DISK SPACE PROBLEMS - Carolyn Goodman

PRE-RESEARCH COUNSELING; STATISTICAL/RESEARCH SUPPORT -George Morrow, Scott Barber, Claudia Lynch, Tim King, Panu Sittiwong

ACADEMIC ADABAS/COM-LETE; CRSP & COMPUSTAT PROBLEMS - Telka Clem

STUDENT PROGRAMMING PROBLEMS - CSCI Dept., GAB Room 542A; BCIS Dept., BA Room 152

JCL PROBLEMS; PASSWORD & OPERATING SYSTEM PROBLEMS; COMMUNICATION/TERMINAL PROBLEMS - Help Desk

DATA ENTRY & KEYPUNCH; TEST SCORING & ANALYSIS - Betty Grise

ADMINISTRATIVE APPLICATIONS - Coy Hoggard

PRINTOUT RETRIEVAL - RJE Operators

NTSU CABLE SYSTEM SCHEDULE

The current configuration of the NTSU cable system is as follows:

Channel 8 — Tager microwave channel. Carries broadcasts to and from NTSU to other links in the Tager Network.

Channel 10 — NTSU Computer System Status Monitor (SSM). Displays the current status of the NAS, VAX and HP computer systems supported by the Computing Center.

DIALING UP NTSU COMPUTERS OVER THE TELEPHONE

Phone numbers for the Local Area Network (LAN) are:

300 BAUD: (817) 565 - 3300

1200 BAUD: 565 - 3499

300 BAUD: D/FW METRO 429 - 6006

After a communications link has been successfully established, the user will receive the # prompt. At this point, it will be necessary to issue the appropriate CALL command to connect with a computer.

The numbers that will accept either 300 or 1200 baud communications (connected to modems with an autobaud feature) are currently out of order. Watch MUSIC/SP News and Benchmarks for information concerning their availability.

CALL 8040 will connect with the NAS/8043 (for 8050 MUSIC/SP access)
8060

CALL 3270 will connect with the NAS/8043 through 3280 the 3270 protocol converter

CALL DEC will connect with the VAX Cluster

CALL 780 will connect with the Research VAX

CALL 2000 will connect with the HP-2000

HOURS FOR NTSU COMPUTER ACCESS AREAS***SPRING 1986:**

<u>Days</u>	<u>Times</u>	<u>Location</u>
Sunday	2-10 p.m. Noon-Midnight	ISB 110 Terminal Area Computing Center RJE
Saturday, Sunday	2-11 p.m. Noon-11:45 p.m. Noon-5 p.m.	GAB 550C College of Business Graphics Lab
Monday	7:00 a.m.-Midnight	Computing Center RJE
Tuesday-Saturday	7:00 a.m.-Open 24 hrs/day	Computing Center RJE
Monday-Thursday	7:30 a.m.-10 p.m. 8:15 a.m.-11:45 p.m.	ISB 110 Terminal Area College of Business
Monday-Friday	8 a.m.-Midnight 8 a.m.-10 p.m.	GAB 550C Graphics Lab
Friday	7:30 a.m.-9 p.m. 8:15 a.m.-7:45 p.m. 8 a.m.-8 p.m.	ISB 110 Terminal Area College of Business GAB 550C
Saturday	9 a.m.-6 p.m. CLOSE Midnight CLOSED	ISB 110 Terminal Area Computing Center RJE GAB 550C

*Exceptions to above schedule for GAB 550C: 5/15 10 a.m.-8 p.m.; 5/12-5/15 8 a.m.-10 p.m.; 5/16 8 a.m.-5 p.m.

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*      NEW POLICIES,
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Changes in the Local Area Network

By Dave Molta, Technical Support Communications Group (AC04 @ NTSMUSIC)

As the number of users accessing NTSU computer systems over the Local Area Network (LAN) continues to grow, modifications are in the process of being implemented to insure efficient load balancing and to maintain performance levels. During spring break, all PCUs (LAN modems) were reprogrammed and an online database developed to increase network efficiency and allow for the monitoring of future changes. Most of these modifications are essentially transparent to the user community. However, in order to insure high levels of performance through end-of-semester peak usage periods, this article offers some recommendations concerning which systems are most efficiently accessed through the various terminal clusters on campus.

In order to understand problems associated with traffic on the LAN, it is necessary to understand something about the architecture of the network itself. The Sytek LAN occupies two 6-megahertz (MHz) channels on the campus cable system. When you place a call over the LAN, the data is transmitted over the return channel (70 to 76 MHz) to a "head end" which translates the frequency to the forward channel (226.25 to 232.25 MHz) in order to reach its destination (e.g. the VAX Cluster). Both of these 6 MHz channels are divided into 20 subchannels, called locations, each of which is 300 kilohertz (KHz) wide. If your type **STATUS** from the LAN prompt (#), you will see a location parameter in the left most column which should be set to either 1, 3, 5, or 7 for academic applications (NAS/8043, VAX Cluster, Research VAX), 17 for administrative applications (NAS/6650), or 19 for the library's HP 3000. Generally speaking, PCUs must be on the same location as the computer system they are trying to access, but since only a limited number of PCUs may be located on any one subchannel, a device called a bridge must be used to allow terminals on one location to communicate with systems on a different location.

Unfortunately, increased traffic over the bridges may result in significant degradation of network performance. In order to alleviate this problem, we have attempted to program the PCUs in terminal areas to the location of the system they are most likely to access. For example, since the VAX Cluster is on location 1, all VAX preference terminals in the GAB 5th floor terminal area are also on location 1. Of course, we realize that some users in the College of Business terminal area may also need to access the VAX Cluster on occasion, and although these terminals are on locations 3 and 5, the bridge will allow them to communicate with the VAX Cluster. In other words, any PCU on one of the four academic locations has access to all academic systems.

The following chart identifies the locations of terminal and host PCUs on campus. In order to maintain network performance, we recommend that you access systems by calling the address which is on the same location as your terminal.

Location 1		
<u>Host PCUs</u>	<u>Address</u>	<u>Number of Ports</u>
Research Vax	780	8
Vax Cluster	DEC	54
<u>Terminal PCUs</u>		<u>Number of Ports</u>
CSCI Lab (Vax Preferences)		40
Dial-up lines		24
Graphics Lab		12
CSCI Staff		
Math Dept. Staff		

Location 3		
<u>Host PCUs</u>	<u>Address</u>	<u>Number of Ports</u>
VM/370 (Full Screen)	3270	32
VM/370 (Line Editing)	8040	32

<u>Terminal PCUs</u>	<u>Number of Ports</u>
BUSI Lab	64
BUSI Staff	

Location 5		
<u>Host PCUs</u>	<u>Address</u>	<u>Number of Ports</u>
VM/370 (Full Screen)	3280	24
VM/370 (Line Editing)	8050	16
HP 2000	2000	12

<u>Terminal PCUs</u>	<u>Number of Ports</u>
Wooten Hall Lab	8
Music Lab	8
Oak St. Hall Lab	8
Dial-up Lines	8
Misc. Staff	

Location 7		
<u>Host PCUs</u>	<u>Address</u>	<u>Number of Ports</u>
VM/370 (Full Screen)	3290	32
VM/370 (Line Editing)	8060	32

<u>Terminal PCUs</u>	<u>Number of Ports</u>
CSCI Lab (MUSIC Preference)	32
Dial-up Lines	24
ISB 110	20

Location 17 (Administrative)

<u>Host PCUs</u>	<u>Address</u>	<u>Number of Ports</u>
Complete A	3270	30
VM/370 (Full Screen)	8040 (temporary)	8
VM/370 (Line Editing)	805F (temporary)	2
VAX Cluster	DEC (temporary)	2

We appreciate your cooperation in accessing campus systems through the address which corresponds to the location of the terminal area where you are working. If you have difficulties reaching the desired system using the scheme outlined above, please contact the Computing Center so that we may take corrective action. In addition, if you have a PCU which will not place calls to any of the addresses outlined above, contact us immediately so that we can reprogram your unit.

On-Line SURF Available on MUSIC/SP Again

It is once again possible to send SURF messages to the operators while logged-on to MUSIC/SP without submitting a batch job. For more detailed information enter HELP SURF while on MUSIC/SP or simply type SURF and follow the instructions.

By Claudia Lynch, *Benchmarks* Editor and PHOENIX Supervisor (AS04 @ NTSMUSIC)

The DELTAK courses are:

The DEPEC course is called ZDPEC2 and contains the following demo courses:

Changes at SPSS Inc.

SPSS Publication Sales
444 N. Michigan Ave.
Chicago, Ill. 60611

or call

(312) 329-3600

Another topic that may be of interest to SPSS users is the demise of the SPSS users group, ISSUE. Although ISSUE was not directly affiliated with SPSS Inc., there was a strong working relationship between the two, and SPSS Inc. will continue many of the activities begun by ISSUE. Specifically, the annual Software Ballot and user opinion surveys. There are currently no plans to form another users group, however all SPSS users are entitled to receive -free- the users' magazine published by SPSS Inc., *Keywords*. Contact SPSS Inc. for more information on *Keywords*, if you are interested.

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* MICROCOMPUTERS *
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By Peter Day, Emory University Computing Center

Small enough to fit on a desk top, a workstation is a small computer providing dedicated computing power as well as input and output devices to help people in their work. Depending on the type of work, the workstation can be an inexpensive home computer or an engineering station costing over \$50,000. In this discussion, a microcomputer can be a workstation, a terminal can not. Workstations are typically linked through networks so that users can communicate with one another and with mainframes.

Workstations can support all kinds of work, including information storage and retrieval, word and document processing, drawing, data analysis, program development, financial analysis, art, music, simulation, foreign language text processing, artificial intelligence, scientific computations, and interactive real-time graphics.

Workstation capabilities that might be required to do these kinds of work include high computational speed, displaying different character styles and sizes (including foreign language characters) on the screen, merging text and graphics and displaying them on the screen simultaneously, running multiple programs simultaneously, sharing files or accessing other computers, running large programs, rotating images in real time, color, working with a large file, sampling data at a certain rate, and displaying a lot of information on the screen simultaneously such as portions of multiple files or full pages of text.

To evaluate the suitability of a workstation, several standards can be applied. These include availability of software, processor speed, screen resolution, number of colors displayed simultaneously, number of color choices, amount of random access memory, maximum program size allowed, cost, input and output devices available and supported, ability to add special devices, local file storage, communications and networking ability, and screen size. The following discussions provide some detail about several standards.

Screen size and resolution affect the type and number of images that the screen displays. Images on most computer screens are constructions of small dots. Screen resolution refers to the number of dots per inch. Because screen sizes do not vary much within certain classes of machines, resolution is often indicated by the number of dots that can be displayed horizontally and vertically. For example, an IBM color monitor has a resolution of 30 to 35 dots-per-inch; a Macintosh screen has a resolution of 76 dots-per-inch.

High resolution enables slanted lines and curves to look smoother. This feature is particularly important in graphics applications where arbitrary shapes need to be shown. Graphics applications may also involve displaying very small characters or resizing images dynamically. Screen resolution determines how small the letters or images can be and still remain legible.

High resolution also enables more detail to be shown, permitting characters of various shapes, styles, and sizes to be displayed. Additional detail enables using small pictures, called icons, to indicate choices for users. Icons can take up significantly less space than text describing them, and can thus remain onscreen alongside the text, graphics, or other work. High resolution allows onscreen micro-justification of text, adjusting spacing between words in multiples of a dot rather than some fixed character to produce a right-justified margin.

Pointing devices have become popular because menus are favored and pointing is a natural way to make selections. Certainly, cursor movement (arrow) keys can be used for pointing. The computer shows a list of choices, with one choice highlighted. Pressing the appropriate arrow key(s) causes a different choice to be highlighted. When the user finds a preferred choice, pressing 'RETURN' selects it.

A popular pointing device is called a mouse. Hand-held, with one or more buttons, users move it along a flat surface. A wire, looking like a mouse's tail, connects to the computer and relays the movement of the mouse. As the mouse is moved, an arrow or other marker echoes the motion on the screen. Pressing a button on the mouse signals a choice or action.

The mouse is particularly suited for rapidly moving the cursor to an arbitrary point on the screen. Using arrow keys to do this can be quite tedious. The mouse is also a good input device for drawing. Because a user's hand and arm can rest on the desk, using the mouse does not become tiring after prolonged use.

Another popular pointing device is the touch screen, which allows choosing by simply touching the screen with a finger. Although the touch screen does not allow as precise positioning on the screen as other devices, it provides a good way to choose from menus without having to learn how to use a keyboard or special devices. Touching the screen would probably become uncomfortable after prolonged repetition.

A window is typically a rectangular screen area that acts as if it were an independent screen or part of one. People use windows to interrupt their work and do something else without losing the context of that task. For example, consider a spelling check application. On finding a word that is not in the dictionary, the program would open a window near the word and show a list of possible correct spellings. If the list were too long to show in one window screen, the computer would scroll it till it ends. The window allows the context of the misspelled word to remain visible. Once the user selects the preferred spelling, the program closes the window, restoring the text behind it.

Windows allow seeing more than one thing at a time. For example, in a spreadsheet application, the spreadsheet could be displayed in one window and the corresponding graph in another. As the numbers are changed, so is the graph. In a program development application, the program output could be shown in one window, the debugger output in another, and the source in a third.

When running more than one program at a time, the output from the programs can be shown simultaneously by using separate windows. An example application is running a spelling check on a document in one window while entering text for another document through another window.

Finally, windows can be used to provide multiple views simultaneously, say, of two different files or different portions of the same file.

Color capabilities can be used to get attention, as in using red error messages, or changing the color of a summary line in a mail system to indicate whether the item has been read. Color is typically used to distinguish variables in graphics and charts. Information can be color coded, say, by using one color to represent underlined text, and another to represent bold when those features cannot actually be shown on the screen. Color can be used to distinguish and separate parts of the picture, as in molecular models, which use color cues to provide a 3-D effect. And color can be used to produce artistic effects in an art application.

Programs are held in random access memory (RAM) while they are running in the computer. In addition, all data movement takes place through RAM. A lot of RAM may be required to run complex programs or to work on large arrays of data. Running multiple programs at the same time will typically require that at least portions of all the programs be in RAM at the same time. Systems that provide sophisticated screen effects, such as variable width characters or merged text and graphics, require an image (bitmap) of the screen in RAM. With programs becoming more complex while trying to do more and in a friendlier manner, coupled with the tendency to run larger programs as the CPU becomes faster, memory needs will probably increase.

Adequate processor speed is, of course, required to do numerical calculations. It is also an issue when running multiple programs simultaneously because the programs must take turns running. Also, more complex software providing more capabilities requires more power. Examples where processor speed is important are managing the screen in a complex window environment and showing a circle changing size and location instantly as it is manipulated by a mouse.

Local file storage needs are also important standards in evaluating workstations. A floppy disk might be fine for an application involving creating memos and short documents. On the other hand, a large amount of file storage may be required to run systems such as UNIX or SPSS, which involve large numbers of files or very large files, or to store a large amount of data locally. The number of input and output operations and the speed of access to the disk will affect how well applications such as program development (for example, compilation and linking) and data analysis (for example, SPSS) run.

Workstations would typically be networked so that they can exchange files, reports, programs, graphs, and other work; send messages; share disk storage, printers, and other devices; and even offload processing tasks. Sharing devices such as printers, disks, and specialized processors is appropriate when cost is a factor.

Currently, the cost of the control electronics is a significant part of the cost of a disk drive. For example, the cost to go from a 100MB drive to a 400MB drive is less than the cost of thirty 10MB drives. This factor makes sharing a large disk drive attractive. Shared disk storage also has implications for backup and security because, for example, backups and enforcement of appropriate protections can be done in one place, rather than having to depend on each station to do its own. Shared disk storage is also an effective way to deliver shared software, to provide access to a file too large to store at any one station, to obviate the need to waste space by storing individual copies of a sizable file at individual stations, to simplify the propagation of updates to shared data and software, and to service diskless workstations, which have no local storage at all.

Shared disk storage services for other machines were initially supplied by machines, called disk servers. Generally, server refers to a machine that supplies services to another machine. The machine receiving the services is called the client. Historically, disk servers typically made a portion of the shared disk space appear to be a local disk. The client then took care of providing file services to programs running on that machine. As a result, there was no built-in provision to coordinate file sharing between clients of the disk server. Rather, special provision had to be made in the applications running on the client machines.

Briefly looking at what workstations might be in the next year, we might expect costs to continue to decline with the declining cost of hardware components. Similarly, advances in component capacities (for example, hard and floppy disks, random access memory, and processor speed) and miniaturization will bring corresponding increases in the capacity available on a desktop. Screen resolution will increase and high-resolution color will become more common. Networking products will begin to mature and will compete to establish a de facto standard. In the MS-DOS arena, MS-NET is expected to be a strong contender. The 3.5-inch diskette will be on its way to becoming as ubiquitous as is the 5.25-inch floppy today. The introduction of optical storage will provide hundreds of megabytes of read-only storage on a desktop.

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Disk Backup Schedules

Backup Schedule for OS/MVS

OS/MVS disk packs (academic and administrative) are backed up daily, Tuesday through Saturday, from 4-6:30 a.m., and Sunday from Midnight to 3 a.m. A backup of all the operating systems on the NAS machines and their contents is done once every two weeks at some low activity period over a weekend.

MUSIC/SP Backup Hours

A message will be sent to all users signed on to MUSIC/SP approximately 10 minutes before backups are begun. It will be in the form ** MUSIC SHUT DOWN AT xxxx AM - SCHEDULED BACKUP **. To find out the backup hours while signed on to MUSIC/SP, enter HELP HOURS. The following backup schedule is currently in effect:

Tuesday	3 a.m. (for about 3 hours)	Weekly backup
Wednesday - Saturday	4 a.m. (for about 2 hours)	Daily backup
Saturday	Midnight (for about 2 hours)	Daily backup

PHOENIX Backup Schedule

PHOENIX is backed up weekly on Sunday night. The backup begins at midnight and lasts for approximately 30 minutes.

VAX Backup Schedule

Incremental backups of both VAX systems are performed Monday through Thursday at 4 p.m. Users do not have to log-off, but any files that are open at the time of the backup will NOT be backed up.

Full backups of both systems are done every Friday beginning at 8 a.m. These generally will take all day to complete. Again, users do not have to log-off, but any files that are open will not be backed up.

A "Stand Alone" backup of the system disk is done the third Tuesday of every month, in the afternoon, just before preventive maintenance. This procedure makes a copy of the system disk that can be used to restore its contents if the disk is completely destroyed. The system will be shut down; watch the system log-on message for specific times and dates.

NOTE: No backups are taken on the weekends. Requests for restoration of files should be made via MAIL to the username OPERATOR. Your file can only be restored if it existed before the last backup was done.

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MUSIC/SP, VM Support Person Resigns

Steve Glick, one of the most versatile of our technical support personnel, resigned effective March 27 to take a position as VM Technical Support person at SMU. While he was at NTSU, Steve chalked up quite a record of rapid advancement within the Computing Center. When we first met Steve, he was an undergraduate Psychology major doing statistical analyses for a Psychology faculty member. He then came to work at the Computing Center as a part-time statistical consultant for Academic Computing Services. After a short while, he applied for and received the job of MUSIC Coordinator, vacated by the resignation of Mohamad Salashoor. After mastering this he applied for the position of VM support person within the Technical Support group. He was accepted for the position and added MUSIC to the list of products supported by that group. He has since also taken on RSCS (Bitnet) and PHOENIX as well as maintaining a helpful working relationship with Academic Computing Services and Information Systems. We wish Steve much happiness and success in his new position and we will keep in touch with him through Bitnet (only a node away!). Needless to say, however, his presence will be sorely missed.

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Information Systems News

By Coy Hoggard, Manager of Information Systems

Hiring Freeze:

Filling of vacant positions in Information Systems has been slowed by the recent "hiring freeze" which resulted from projected revenue shortfalls at the state level. Most (but not all) of our vacancies have now been reviewed by the Chancellor and the Vice President for Fiscal Affairs, and have been deemed to be "mission essential," meaning

that we can proceed with hiring. Meantime, the only viable candidate that we had identified to fill our Fiscal Programmer vacancy accepted an offer from another University. The hirings mentioned in the following paragraphs were a result of offers that had already been made and accepted before the "freeze" went into effect.

HRMIS Analyst Hired

Will Robertson has been hired to fill the vacant HRMIS Programmer/Analyst position. His first day on the job was Feb. 20, 1986. He will work under the direct supervision of Bill Buntain, Application/Project Team Leader for the HRMIS (Human Resources Management Information Systems) Team. Will is a native of the Wichita Falls, Texas area. He and his wife have been Denton residents for about eight years. Will has a BA degree from UT Austin with a major in Cultural Anthropology, and is currently pursuing a MS degree in Computer Science. Will comes to us from Moore Business Forms, where he was employed as a Programmer/Analyst for the last three years. He is a former employee of the NTSU Computing Center, having been a student Computer Operator prior to his employment at Moore's. Will's wife, Nancy, is an NT graduate, with a Master's degree in Music.

TCOM HRMIS Programmer Hired

Margaret Ambuehl has been hired to fill the vacant TCOM HRMIS Programmer position. She is officially a TCOM employee, but will be officed at NTSU and will work under the direct supervision of Bill Buntain, Application/Project Team Leader for the HRMIS Team. Her first day on the job was March 3, 1986. Margaret is a native of the state of Washington, but she and her husband are currently residents of Denton. Margaret graduated from NTSU in 1984 with a BS degree, with a major in Computer Science and a minor in Business Economics. She comes to us from Lomas & Nettleton Information Systems in Dallas, where she was employed as a Programmer.

Programmer from General Systems Team Fills Vacant Advancement Analyst Position

Mahshid Grooms has been promoted from Programmer to Programmer Analyst within the General Systems Team, filling a vacancy which had been created to provide additional software support for the Advancement Office. Mahshid will continue to work under the supervision of George Williams, Application/Project Team Leader for the General Systems Team, but her responsibilities and work assignment will be considerably different. Mahshid is a 1980 graduate of NTSU with a BBA degree, and is currently pursuing a Master's degree in Accounting. She has been a Programmer in the Information Systems group since November, 1983 and has worked on the SIMS project, FAMS (Financial Aid Management System), the Advancement System, and other NTSU information systems. Mahshid is a native of Iran. She and her husband currently are Denton residents.

Programmer from General Systems Team Resigns to Accept Programmer / Analyst Position in Office of Vice President for Academic Affairs & Provost

Sue August has resigned her position as Programmer in the General Systems Team to accept a position as Programmer/Analyst in the Office of the Vice President for Academic Affairs and Provost. Sue has been employed in the Information Systems group for approximately five years, and has made significant contributions in many areas. Her services will be sorely missed. The most severe impact will likely be in the FAMS area where Sue has been actively engaged in applying maintenance modifications to that software system.

Information Systems Vacant Positions

NTSU Positions:

- Fiscal Systems Programmer (Programmer II)
- General Systems Programmer Analyst (Programmer Analyst I)
- General Systems Programmer (Programmer I)
- Data Base Analyst (Programmer Analyst II)

TCOM Positions:

- Fiscal Information Systems Programmer Analyst (Programmer Analyst I) (to be officed at NTSU)
- Fiscal Information Systems Programmer (Programmer II) (to be officed at TCOM)
- Fiscal Information Systems Programmer (Programmer II) (to be officed at NTSU)

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*   H U M O R         *
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Computer Rock

There seems to be a trend recently toward immortalizing computers in rock-n-roll parodies. Below are some samples. The first comes to us from The University of Texas at Arlington. The author is Brent Turner, an Applications Programmer and former editor of the UTA Computer Center Newsletter, *The Link*. The song parodied is "Communication" by Spandau Ballet, from the album *True*.

COMMUNICATION

TRUE condolences to Spandau Ballet

Communication always leaves me incomplete.
 The data's cleaner but transmission's not discrete.
 Line generation is the message that we see
 When the packet is transmitted but it's never error-free.
 Communication let me down
 And I'm offline.
 Communication let me down
 And I'm offline, I'm offline, again.

RS232-C, async, multiband,
 Gives access to the data base
 But the downtime's never planned.
 Create, emulate, it can send it to your home.
 Return full duplex with a modem and a phone.

Communication let me down
 And I'm offline.
 Communication let me down
 And I'm offline, I'm offline,
 I, I, Iiiiiiii....

I'm sitting here waiting by the terminal,
 Waiting for the line to link.
 Logon fumble
 Dial-a-port trouble
 And I ain't got time for searching through the rubble.
 Oh no!

Communication let me down
 And I'm offline.
 Communication let me down
 And I'm offline, I'm offline, again.

The next lyrical parody comes to us from Brent CJ Britton of the electronic humor magazine, *NutWorks*. It is a take-off on "Money for Nothing" by Dire Striats.

SOFTWARE FOR NOTHING

With apologies to Mark Knopfler.

I waaaant my.. I waaaant my... I waaaant my C-R-T.....
 Now look at them hackers,
 That's the way ya' do it.
 Ya' play with mem'ry that you cannot see.
 Now that ain't workin, that's the way ya do it.
 Get your software for nothing and your chips for free.

Now that ain't workin, gotta CPU-it.
 Let me tell ya, them guys ain't dumb.
 Maybe crash the system with your little finger,
 Maybe crash the system with your thumb.

We got to install micro-data-bases,
 Gotta make things run like a breeeeze.
 We gotta help these foreign students,
 We gotta help these mindless E.E.'s...

 The little Hacker with the Pepsi and the Munchos:
 Yeah, buddy, don't like to SHARE...
 The little Hacker got his own compiler,
 The little guy don't change his underwear.

 We got to install the latest debugger,
 Under budget, and optimiiiiiiized.
 We got to have more muddy-black coffee,
 We got a green glow in our eyyyyyyes...

 I shoulda' learned to play with Pascal.
 I shoulda' learned to program some.
 Look at that drive, I'm gonna stick it on the channel.
 Man, it's better than the old one...

 And who's up there, what's that? Beeping noises?
 He's bangin on the keyboard like a chimpanze.
 Oh that aint workin, that's the way ya do it,
 Get your software for nothin', get your chips for free.

Electronic Humor Magazine Available

Speaking of *NutWorks*, we received the following memo, over Bitnet, concerning the availability of *NutWorks* to the general public. If you have a BitNet ID, you might want to explore this lighter side of computing sometime. Otherwise, you will be able to find excerpts from the various *NutWorks* issues, from time to time, in *Benchmarks*.

Subject: General availability of NutWorks magazine... here's the poop!

To: NutWorks readers

From: Those crazy nutty guys on the Editorial staff.

Overview:

NutWorks is an electronic humor magazine which has been spreading virtual chuckles and chortles around the computerized world for over a year.

NutWorks is "published" monthly and is free to anyone. Each monthly issue is sent (via MAIL) to members of the NutWorks subscription list, (see below), and is also placed on certain network file servers. Feel free to give your copy of NutWorks to anyone who asks for it.

Subscriptions:

A subscription to NutWorks (i.e. each new issue electronically MAILED to you upon publication) can be obtained by sending a request via MAIL or NOTE (no messages please) to a member of the current editorial staff, as listed on the bottom of this file.

Back issues:

Back issues of NutWorks can be found on CSNEWS at MAINE.BITNET using the command: **message csnews at maine SENDME NUTWORKS ISSUExxx**

NutWorks can also be found on FORUM at TAMCBA.BITNET using the command **message forum at bitnic /SENDME NUTWORKS ISSUExxx** and on TCSSERVE at TCSVM.BITNET using the command: **message tsserve at tcsvm SENDME NUTWORKS ISSUExxx**

(where "message ___ at ___" represents your own personal method of sending messages, and "xxx" is a valid issue number. There are 009 issues as of this date). If there are problems, all of the servers accept the HELP command. Please do NOT send mail or other files regarding NutWorks to CSNEWS or FORUM or TCSSERVE as this will annoy those people causing them to become prematurely gray.

Articles:

NutWorks encourages readers to send humorous articles on any topic to the editorial staff for consideration. Contact us for more info.

NutWorks Editorial Staff:

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Get a "Subscription" to *Benchmarks*

Benchmarks is a vital link between the NTSU Computing Center and the users of our facilities. It is important for all users of the computing facilities to maintain a file of these newsletters because they contain materials which will periodically update existing documents as well as information and suggestions on uses of OS/MVS, MUSIC/SP, the VAX Cluster, Microcomputers, and other resources available to NTSU students and faculty. To facilitate the dispersal of *Benchmarks*, *** **FREE** *** subscriptions are available. To receive yours, send the following information to us either by "snail mail" (the post office or campus mail) or electronically, through the MEMO facility on MUSIC/SP to AS04.

Name _____

Mailing Address _____

Name _____

Mailing Address _____

PLEASE GIVE A CAMPUS ADDRESS (NOT BOX) IF POSSIBLE! - It's Cheaper !!

PLEASE RETURN TO:
Academic Computing Services
The Computing Center
NT Box 13495
North Texas State University
Denton, TX 76203